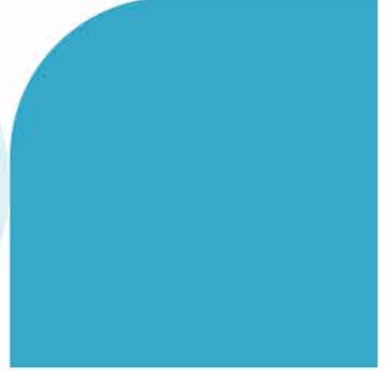
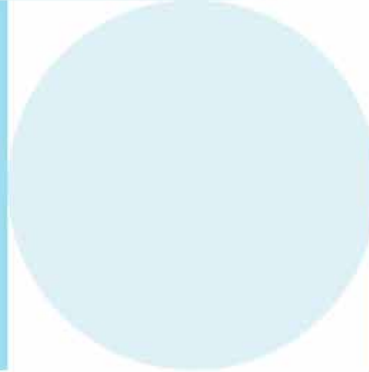
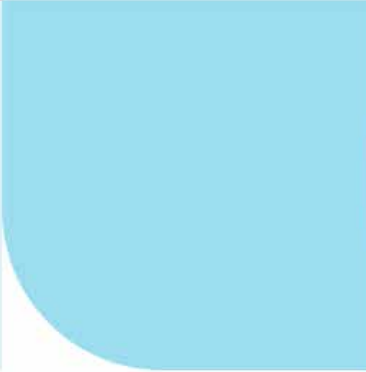
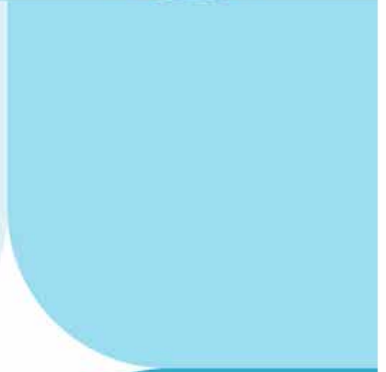
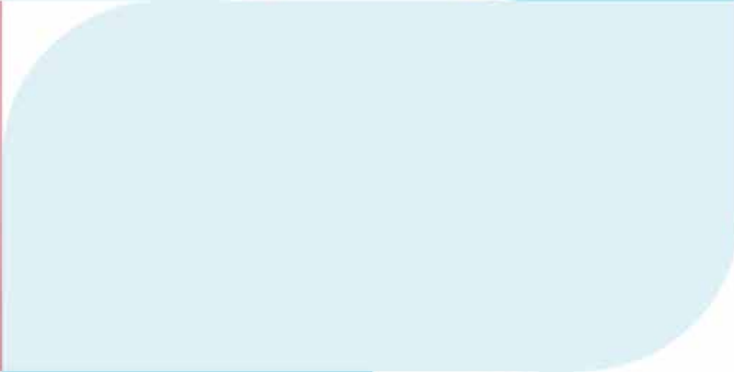




Test report



At-home test



Neurotransmitters Plus

Lab test

Urine

Name: **Dummy Persson** Date of test: **12/07/2022** Analysis-ID: **NEURO-DUMMY**

Your test results

Our lab has tested your urine sample for the levels of serotonin, dopamine, adrenaline, noradrenaline, GABA and glutamate. Your results can be found below.

Neurotransmitters Plus

Name	Your value	Reference value	Scale
Adrenalin	 4.43 µg/g Crea	2,0 - 5,5	
Creatinine *	 1290.90 mg/dl	290 - 2260	
Dopamin	 212.95 µg/g Crea	130 - 240	
GABA	 1.99 µmol/g Krea	1,5 - 5,0	
Glutamat	 12.16 µmol/g Krea	8 - 25	
Noradrenalin	 27.93 µg/g Crea	15 - 36	
Quota Noradrenaline / Adrenaline	 6.30 Kvot	3 - 6	
Serotonin	 75.57 µg/g Crea	80 - 190	

* The creatinine value is used to see if you have a normal urine concentration and that it is not abnormally diluted or abnormally concentrated because in that case it can affect the measured values.

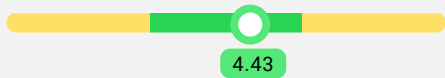
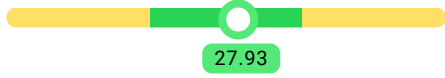
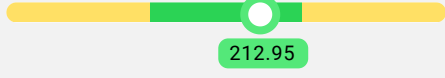
Neurotransmitters Plus

Chronic stress is challenging on the body's energy reserves and can be very taxing on health in the long run. The hormones and neurotransmitters responsible for the stress response and its regulation in the body can be a warning signal that tells us when we have pushed ourselves too hard and give us an opportunity to do something about it before it is too late, or before we eventually get burned out.

When we are exposed to chronic stress, hormones and neurotransmitters are used until the reserves are depleted, which can result in symptoms of mental or physical exhaustion. The earlier we relax when the faster we can recover.

The interaction between all these substances can give a positive stress reaction in the body. If a person is under constant stress or already suffers from chronic fatigue or burnout, the balance between the neurotransmitters has become out of balance.

Adrenaline, noradrenaline and dopamine

Name	Your value	Reference value	Scale
Adrenalin	4.43 µg/g Crea	2,0 - 5,5	
Noradrenalin	27.93 µg/g Crea	15 - 36	
Dopamin	212.95 µg/g Crea	130 - 240	

Adrenaline, noradrenaline and dopamine belong to the group of catecholamines formed by the amino acids phenylethylamine and tyrosine. Adrenaline increases heart rate, cardiac output, blood pressure, mental activity and inhibits the immune system in the body. Noradrenaline also increases blood pressure and together with dopamine promotes attention, concentration and motor skills. Noradrenaline and dopamine also inhibit the immune system in the body and thus increase the susceptibility to infections.

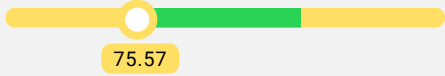
If adrenaline, noradrenaline or dopamine are below normal, an increased intake of tyrosine or phenylethylamine should be taken together with the necessary vitamins and minerals that support the production of neurotransmitters to counteract further depletion of neurons. These are manganese, B-vitamins, calcium, copper, iron and vitamin C. Tyrosine can be absorbed from the diet or synthesized from the amino acid phenylethylamine. The tyrosine is then converted to L-DOPA, which is further converted to dopamine. This results in noradrenaline and finally adrenaline.

Collectors for methylglutathione should be used to meet different adrenaline production in combination with high levels of the dopamine and noradrenaline precursors. The recommendation is then B-vitamins, magnesium and/or 5-methyltetrahydrofolate (5-MTHF).

If the dopamine is too high and not noradrenaline or dopamine, 5-hydroxytryptophan (5-HTP) in combination with methionine (vitamin B1) is recommended instead.

Common symptoms of too high levels of noradrenaline are high blood pressure, racing or irregular heartbeat and anxiety. Elevated noradrenaline levels can occur during situations of acute stress and are often the result of caffeine overload. People with post-traumatic stress disorder often have a hyperactive noradrenaline system. If you notice high or noradrenaline, you should avoid coffee. Therapeutic measures include moderate exercise, relaxation techniques (such as autogenic training) and / or psychotherapy. Elevated noradrenaline levels may also be due to therapeutic intervention. If this is the case, a dose reduction is recommended, the goal is to keep the levels within the normal range in the long term. Cofactors for degrading enzymes, which mainly play an important role in metabolism, metabolism and MAO, can be added to reduce increased neurotransmitter levels. Supplements of magnesium, niacinamide (vitamin B3) and B6 (pyridoxine) may be useful.

Serotonin

Name	Your value	Reference value	Scale
Serotonin	75.57 µg/g Crea	80 - 190	

Serotonin works to reduce stress, regulate blood pressure and intestinal motility, promote relaxation, boost mood, regulate sleep, reduce anxiety and nervousness and depression and positive effect on brain activities. Serotonin also regulates the perception of pain, appetite and body temperature. Serotonin can be converted to melatonin, which plays an important role in controlling sleep and the circadian rhythm.

Serotonin is formed by the amino acid tryptophan. The amount of tryptophan available through food and absorbed through the gut affects serotonin levels. A low level of serotonin can be treated with tryptophan or the following recommended products in combination with a multivitamin and mineral supplement, or especially vitamin B2, vitamin B6 and folic acid (vitamin B9). Niacin is especially important when tryptophan is undernourished, as it prevents tryptophan from being used for niacin synthesis. Niacin also inhibits tryptophan 5,3-deoxygenase, an enzyme that breaks down tryptophan into kynurenine.

GABA


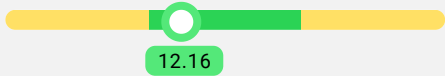
Name	Your value	Reference value	Scale
GABA	1.99 µmol/g Krea	1,5 - 5,0	

Gamma-aminobutyric acid (GABA) is quantitatively the largest and most important inhibitory neurotransmitter in the central nervous system. GABA is endogenously synthesized using the amino glutamate decarboxylase from the excitatory neurotransmitter glutamate.

GABA stabilizes blood pressure, regulates appetite, suppresses anxiety and promotes sleep. Low levels have been seen in, among other things, depression and it is known that GABA is important for calming neurons and a person's behavior. It can be helpful for anxiety, mood behavior, epilepsy, epilepsy and high blood pressure.

GABA counteracts the excitatory noradrenaline and attenuates the cortisol-mediated stress response. GABA is formed by glutamic acid (glutamate), which is a stimulating neurotransmitter and is considered an antagonist of GABA. GABA can also be formed from threonine, which is found in green tea. GABA is otherwise available as a dietary supplement.

Glutamate

Name	Your value	Reference value	Scale
Glutamat	 12.16 µmol/g Krea	8 - 25	

Glutamate (glutamic acid) is the most important excitatory neurotransmitter. The concentrations of the neurotransmitters glutamate and GABA are about 1000 times higher than the concentrations of dopamine and norepinephrine. Glutamate is of great importance for, among other things, learning, memory and motor skills and stress response in the brain. Glutamate can be produced in various ways, for example by neurotransmission from a heterologous acid.

In low glutamate levels, glutamate can be given in a dose of 2 - 5 g per day, divided into several single doses. The product should be taken on an empty stomach if possible to improve absorption. Because high glutamate levels can have a neurotoxic effect, it should only be taken if the test shows very low glutamate levels.

Sources in the diet

Below you will find sources of tyrosine, tryptophan and phenylalanine in your diet.

Tyrosine Black bean, ribe grass, turkey, corn, wheat bran, soy beans, pumpkin seeds, sesame seeds, pecans, sweet almonds, cottage cheese, ricotta cheese, powdered milk.

Tryptophan Some meat, pork, soy protein, brown rice, cottage cheese, fish, beef, liver, lamb, pecans, pumpkin, sesame seeds and lentils.

Phenylalanine Pork, sausage, turkey, chicken, wheat bran, cottage cheese, milk, yogurt, eggplant, avocados.

Taking tryptophan. When tryptophan is used to increase serotonin levels, it should be taken between meals. A suitable diet is low in carbohydrates and low in protein if this is possible. This results in the release of insulin, which moves the uptake into the muscles of amino acids that compete with tryptophan for transport in the blood-brain barrier, so that more tryptophan can enter the brain via the blood-brain barrier.

Warning

If you are being treated with serotonin reuptake inhibitors (SSRI), such as citalopram or fluoxetine, you should not take tryptophan or 5-HTP. Therapy with tryptophan or 5-HTP is also not recommended when taking MAO inhibitors, tramadol or migraine therapy with ergotans or ergotamine derivatives, as unpredictable interactions are possible in such cases. Caution is also advised when treating with tricyclic antidepressants. Tryptophan or 5-HTP should only be used with extreme caution.

This test does not replace a medical consultation. Always seek medical attention if you experience severe symptoms.

